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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/331,189	11/29/1999	HEINRICH ULRICH	016790/0376	1362

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EXAMINER

WINSTEDT, JENNIFER E

ART UNIT PAPER NUMBER

2872

DATE MAILED: 02/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/331,189

Examiner

Jennifer E Winstedt

Applicant(s)

ULRICH ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-22,25-35,39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-22,25-35,39 and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/21/01 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 16-22, 25-35, 39, and 40 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not describe the optical system for image rotation being rotatable or how it is rotated. There is no disclosure of any structure that would rotate the optical system for image rotation. Page 3, line 25 – page 4, line 6 talk about the optical system rotating an image, but not the optical system being rotated. Also,

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lines 27-29 of page 4 relating to rotation of the arrangement alone is not enough to support the new claim limitation since it gives no indication as to how the arrangement is being rotated or if it is being rotated intentionally.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 16-18, 20-22, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horikawa (U.S. Patent 4,734,578) in view of Dewald et al. (U.S. Patent 5,365,288).

Regarding claims 16-18, 20-22, and 25, Horikawa discloses a confocal microscope defining a path of rays and comprising an ocular (82, Figure 8), a tube lens (61, Figure 8), a scanning lens (60, Figure 8), and a scanning mirror (59, Figure 8). Horikawa does not disclose an optical system for image rotation disposed between the scanning lens and the scanning mirror in the path of the rays of the microscope; wherein the optical system for image rotation is a dove prism or a mirror system with an odd number of mirrors, such as a K mirror, and serves to rotate all scanning and video images fed through the scanner into the microscope. Dewald et al. discloses an optical system for image rotation that is disposed between a scanning lens (22, Figure 2) and a scanning mirror (16, Figure 2), is a dove prism (column 3, lines 13-15) or a mirror

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system with an odd number of mirrors, such as a K mirror (20, Figure 2), and serves to rotate all scanning and video images fed into the device (see Figure 2). The optical system for image rotation of Dewald et al. is as rotatable as the optical system for image rotation described in the specification. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the microscope of Horikawa an optical system for image rotation as Dewald et al. suggests in order to compensate for the horizontal movement of the image by the scanning mirror and keep the image right side up (column 1, lines 42-46; Dewald et al.) so a sample is more easily viewed by a viewer looking through the ocular.

Regarding claim 26, Horikawa in view of Dewald et al. discloses that the laser scanner further comprises a fixed thick beam splitter to avoid interferences (55, Figure 8; Horikawa).

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horikawa in view of Dewald et al. as applied to claims 16-18, 20-22, 25, and 26 above, and further in view of Wasmund et al. (U.S. Patent 4,181,436).

Regarding claim 19, Horikawa in view of Dewald et al. discloses the claimed invention except for the optical system for rotation being an Abbe prism. Wasmund et al. discloses an optical system for image rotation that is an Abbe prism (column 4, lines 3-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the optical system for image rotation of Horikawa in view of Dewald et al. be an Abbe prism as Wasmund suggests in order to be able to control the beam (column 3, line 66 – column 4, line 2; Wasmund et al.).

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6. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horikawa in view of Dewald et al. as applied to claims 16-18, 20-22, 25, and 26 above, and further in view of Yano (U.S. Patent 5,701,197).

Regarding claim 27, Horikawa in view of Dewald et al. discloses the claimed invention except for an axially movable objective being provided. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an axially movable objective in the microscope of Horikawa in view of Dewald et al. as Yano suggests in order to achieve fine focus adjustment (column 3, lines 49-50; Yano).

7. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horikawa in view of Dewald et al. as applied to claims 16-18, 20-22, 25, and 26 above, and further in view of Kapitza (U.S. Patent 5,896,224).

Regarding claim 28, Horikawa in view of Dewald et al. discloses the claimed invention as described above except for an axially movable objective turret being provided. Kapitza discloses an axially movable turret (3, Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an axially movable objective turret in the microscope of Horikawa in view of Dewald et al. as Kapitza suggests in order to be able to have more than one view of the object.

8. Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horikawa in view of Kleinberg (EP 0 464 232 A1).

Regarding claims 29-31, Horikawa discloses a confocal microscope defining a path of rays and comprising a microscope objective (62, Figure 8); an ocular (82, Figure 8); and a tube lens (61, Figure 8). Horikawa does not disclose a rotatable optical

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system for image rotation disposed in the path of rays of the microscope, wherein the rotatable optical system is disposed between the tube lens and microscope objective in the path of rays and wherein the rotatable optical system for image rotation is a dove prism. Kleinberg discloses a rotatable optical system for image rotation (276, Figure 10) that is disposed between a tube lens (294, Figure 10) and an objective (258, Figure 10) in a path of rays of a microscope and that is a dove prism (276, Figure 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the microscope of Horikawa a rotatable optical system for image rotation that is disposed between the tube lens and the objective and that is a dove prism as Kleinberg suggests in order to compensate for an image rotation that might occur (column 10, lines 29-30; Kleinberg).

9. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horikawa in view of Kleinberg as applied to claims 29-31 above, and further in view of Wasmund et al. (4,181,436).

Regarding claim 32, Horikawa in view of Kleinberg discloses the claimed invention except for the optical system for rotation being an Abbe prism. Wasmund et al. discloses an optical system for image rotation that is an Abbe prism (column 4, lines 3-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the optical system for image rotation of Horikawa in view of Kleinberg be an Abbe prism as Wasmund suggests in order to be able to control the beam (column 3, line 66 – column 4, line 2; Wasmund et al.).

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10. Claims 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horikawa in view of Kleinberg as applied to claims 29-31 above, and further in view of Official Notice.

Regarding claims 33-35, Horikawa in view of Kleinberg discloses the claimed invention as described above except for the rotatable optical system for image rotation being a being a mirror system that is configured as a K mirror, which has three mirrors. Official Notice is taken that it is well known in the art that a K mirror performs the same function as a dove prism in rotating an image. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the rotatable optical system for image rotation of Horikawa in view of Kleinberg be a mirror system that is configured as a K mirror in order to cut production costs.

11. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horikawa in view of Kleinberg as applied to claims 29-31 above, and further in view of Yano.

Regarding claim 39, Horikawa in view of Kleinberg discloses the claimed invention except for an axially movable objective being provided. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an axially movable objective in the microscope of Horikawa in view of Kleinberg as Yano suggests in order to achieve fine focus adjustment (column 3, lines 49-50; Yano).

12. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horikawa in view of Kleinberg as applied to claims 29-31 above, and further in view of Kapitza.

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Therefore, the motivation to combine the optical system for image rotation of Dewald et al. with the microscope of Horikawa is to make sure the image seen by the observer is right side up.

In response to applicant's argument that Dewald et al. does not disclose a rotatable optical system for image rotation, the examiner points out that the optical system for image rotation found in Dewald et al. is as rotatable as the optical system for image rotation described in the specification.

14. Applicant's arguments with respect to claims 29-35, 39, and 40 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer E Winstedt whose telephone number is (703) 305-0577. The examiner can normally be reached on 7:30-17:00 Monday-Friday.

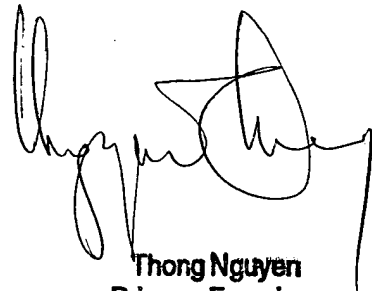
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on (703) 308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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JW

February 10, 2002



Thong Nguyen
Primary Examiner



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